

BROAD AGENCY ANNOUNCEMENT 1999

BASIC AND APPLIED RESEARCH IN SUPPORT OF THE
US ARMY
CONSTRUCTION ENGINEERING RESEARCH LABORATORIES
BY HISTORICALLY BLACK COLLEGES AND UNIVERSITIES
AND MINORITY INSTITUTIONS

DACA88-99-R-0002

PREFACE

The U.S. Army Construction Engineering Research Laboratories (CERL) as part of the U.S. Army Engineer Research and Development Center (ERDC) offers research and development (R&D) support, as well as technical assistance, to a variety of customers throughout the Department of the Army (DA) and other Government agencies. CERL is the lead Army facility for conducting research on infrastructure and environmental issues for installations. CERL's research is directed toward increasing the Army's ability to more efficiently construct, operate, and maintain its installations and ensure environmental quality and safety at a reduced life-cycle cost. To accomplish the mission, CERL is composed of the Facilities Technology Laboratory, the Land Management Laboratory, the Planning and Management Laboratory, and the Utilities and Industrial Operations Laboratory. Research is conducted by Government personnel and by contract with educational institutions, non-profit organizations and private industries.

The provisions of the Competition in Contracting Act of 1984 (Public Law (P.L.) 98-369) as implemented in the Federal Acquisition Regulation (FAR) provide for the issuance of a Broad Agency Announcement (BAA) as a means of soliciting proposals for basic and applied research and that part of development not related to the development of a specific system or hardware procurement. This announcement is general in nature and identifies the areas of research interest, including criteria for selecting proposals, and solicits the participation of all offerors capable of satisfying the Government's needs. The proposals submitted under this BAA will be subject to peer or scientific review. Proposals that are selected for award are considered to be the result of full and open competition and in full compliance with the provisions of P.L. 98-369, "the Competition in Contracting Act of 1984".

This guide constitutes the BAA of this Command and conforms with regulatory requirements of the Federal Acquisition Regulation and the Department of Defense Grant and Agreement Regulations (DODGARS). This guide provides prospective offerors information on the preparation of proposals for basic or applied research. Suggestions as to form and procedures are included.

Offerors shall submit a brief letter pre-proposal not to exceed five pages addressing (i) the major research thrust; (ii) the technical approach; (iii) the research goals; (iv) total estimated cost and relevancy to the research described herein. Pre-proposal inquiries will be responded to within approximately sixty (60) days of receipt, either encouraging submission of a full proposal or advising the offeror not to submit.

Persons contemplating submission of a proposal are also encouraged to contact the appropriate CERL scientist identified in this publication to ascertain the extent of interest that CERL may have in a specific research project.

Proposals from U. S. Government facilities and organizations, or any other organization that does not qualify as a Historically Black College and University or Minority Institution (HBCU/MI), will not be considered under this program announcement. This announcement is

100% set-aside for qualified HBCU/MIs, which is defined in Clause No. 52.226-7000 and in Clause No. 52.226-7001 found in Part IV.

All pre-proposals and proposals regarding this Broad Agency Announcement shall be submitted to the **Construction Engineering Research Laboratories, ATTN: CTC-BAA, 2902 Newmark Drive, Champaign, IL 61822-1076**, and should reference this announcement.
Reference must be made to the code number for the specific research area to which the proposal applies. These code numbers are listed at the end of each topic title (e.g., HBCU-1). The proposal cover sheet enclosed in Attachment 1 shall be utilized to provide this information.

PERSONS SUBMITTING PROPOSALS ARE CAUTIONED THAT ONLY A CONTRACTING OFFICER MAY OBLIGATE THE GOVERNMENT TO ANY AGREEMENT INVOLVING EXPENDITURE OF GOVERNMENT FUNDS.

This Broad Agency Announcement shall remain in effect until December 31, 1999.

The Offeror, by submission of a proposal or execution of a contract, grant, or cooperative agreement in response to this solicitation, certifies that the Offeror is not debarred, suspended, declared ineligible for award of public contracts, or proposed for debarment pursuant to FAR 9.406-2 and Provision No. 52.209-5 included in Part IV. If the Offeror cannot so certify, or if the status of the Offeror changes prior to award, the Offeror shall provide detailed information as to its current status.

NOTE: PREPARATION INSTRUCTIONS AND ADDRESS ARE SHOWN ON PAGES 5-9.

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ATTACHMENT

Proposal Cover Page

FACILITIES TECHNOLOGY LABORATORY

I. Introduction:

The Facilities Technology Laboratory includes the Engineering, Materials Science and Technology, and Maintenance Management and Preservation Divisions. This laboratory's mission is to conduct research and provide development, technology transfer, and technical assistance to advance military and civil works facilities technology in the field of metallic and nonmetallic materials science; energy using systems within facilities; synthesis and engineering for the improvement of the design, construction, operation, maintenance and repair of military and civil works facilities; and the preservation of historic facilities.

Research focuses on material and structural characteristics and performance as related to conventional facilities, HVAC systems, other mechanical systems, lighting, electrical systems, green buildings, environmental impact of buildings, energy flow and analyses, facilities designed to resist earthquakes, shock and vibration, nuclear and nonnuclear electromagnetic environments, and other adverse environments. Particular emphasis is placed upon: materials selection and environmental compatibility of materials; smart materials and systems; improved efficiency of HVAC and controls; improved efficiency of lighting systems; improved electrical systems; protective coatings; corrosion mitigation techniques; metallurgy; welding; failure analysis, polymer based composites; advanced roofing systems and other building materials for new construction, maintenance, repair, and rehabilitation; automation and construction robotics; nondestructive testing and automated facility condition assessment; engineered management systems and integration; materials and structural based concurrent engineering modules; and maintenance, repair and documentation of historic structures.

The Facilities Technology Laboratory provides consulting services to the Army and other government agencies. This laboratory operates the US Army Corps of Engineers (USACE) Paint Laboratory and Welding Technology Laboratory, and supports technology infusion to users. Current research in the energy field also includes developing a workable set of procedures to enable Army installation Public Works Business Centers to fully recommission the energy systems in all their facilities and to keep the facilities operating in the recommissioned state over their remaining lifetime. Recommissioning (ReCx), as specified in this section, refers to adjusting, re-calibrating, and repairing the existing energy systems and does not include major renovation. In addition, current research is conducted to improve the commissioning process utilized during new construction projects executed by the Corps of Engineers such that the energy systems in the new building perform as designed when the facility is completed.

II. Research Areas

A. Condition Assessment Procedures (HBCU-1)

This research would develop procedures that are easily and rapidly usable by an Army installation Public Works Business Center to determine which facilities are suitable candidates for ReCx and to determine the costs and benefits of the ReCx on those facilities. Emphasis is on procedures which can be rapidly applied to the entire inventory of facilities at an Army

installation to determine potential ReCx candidates, procedures for performing detailed condition assessment on a specific facility to determine the appropriate ReCx actions, and procedures for computing the costs and energy savings of the proposed ReCx actions on a given facility. (Contact: Dale Herron, 217-373-7278.)

B. <u>Measurement and Verification Procedures for Facility Energy System ReCx</u> (HBCU-2)

This research would develop measurement and verification (M&V) procedures for ReCx of facility energy systems. The procedures would be used to quantify the initial energy reductions obtained from the ReCx and could be used to annual verify that the savings are sustained over the facility life. The procedures should require a minimum of collected performance data and be useable by an Army installation Public Works Business Center staff. (Contact: Dale Herron, 217-373-7278.)

C. Smart Materials, Structures and Systems (HBCU-3)

Required research involves performing and integrating interdisciplinary basic and applied research, and engineering studies and analyses in the disciplines of materials, mechanics, civil engineering, mechanical engineering, electrical engineering, and computer modeling for the development of smart materials and systems concepts for application infrastructure applications. This involves working knowledge of the mechanism of piezoelectricity, electrorheological fluids, fiber optics, shape memory alloys, magnetorheological fluids, magnetostrictive materials, active and passive tagging materials and techniques. The ability to develop constitutive models of these mechanisms for these applications is often required. Moreover, the contractor will have to develop concepts and prototype demonstrations for infrastructure applications using these mechanisms as sensors and actuators along with appropriate controls for autonomous or semi-autonomous response to significant changes in environment. (Contacts: Robert Quattrone, 217-373-6744; Justin Berman, 217-352-6511, ext.7673.)

D. Roofing (HBCU-4)

Research and development efforts are currently requested in the following areas:

- 1. Perform studies of roofing material degradation processes, including performance of accelerated weathering and laboratory testing of new and aged materials and development of degradation models. Materials shall include the following: elastomeric and thermoplastic polymeric sheets, modified bitumen, bituminous built-up, and asphalt shingle.
- 2. Development of standard serviceability tests and performance criteria for roofing materials and systems based on degradation models. (Contact: Dave Bailey, 217-352-6511, ext. 7480.)

E. Construction Materials Made From Recycled Wastes (HBCU-5)

Research is currently being conducted on construction materials made from recycled, post-consumer wastes with a primary focus on products made from recycled plastics. Work on these type materials is in support of Executive Order 13101, Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition. Required research on these polymeric materials includes, but is not limited to, studies concerning: relationship of fabrication techniques to end-product properties, degradation mechanisms in various environmental exposures, long-term mechanical properties and durability in severe and varying environments, creep behavior at varied temperatures and loads, behavior and design of bolted connections, quality assurance techniques, design criteria for structural applications, and modeling techniques to predict material behavior in different loading situations over the life-cycle of the product. (Contact: Richard Lampo, 217-373-6765.)

UTILITIES AND INDUSTRIAL OPERATIONS LABORATORY

1. Introduction

The Utilities and Industrial Operations Laboratory includes the Utilities, Industrial Operations, and Troop Installation Operations Divisions. This laboratory's mission is to conduct research, development, technology transfer, and technical assistance on energy systems and energy management methods for the design, construction, operation and maintenance of Army facilities. The research also addresses the pollution prevention and control requirements of Army troop and industrial installations worldwide. They support Division and District Engineers, Directors of Public Works, Army Headquarters elements and Major Army Commands (MACOMS) through research and development activities and by adapting existing technology to meet specific Army requirements.

Research is conducted on central heat plant modernization, air pollution control equipment, alternate energy sources, electrical generation and supply, thermal energy supply and distribution, water supply and distribution, material selection for reduced maintenance, incineration and heat recovery, energy analysis, design and management techniques, acceptance testing, control systems, and system failure diagnostics. Technology is transferred to the field through official guide specifications and manuals, training courses and workshops, and other written and visual media.

In addition, this laboratory provides/develops technology and guidance to reduce generation of both hazardous and conventional wastes through materials substitution, process change, waste minimization, and recycle/reuse of materials. Where waste reduction alone is insufficient, the laboratory will develop/adapt treatment and disposal technologies to achieve and maintain environmental compliance and to minimize potential adverse human health and environmental impacts from Army wastes. Research focuses on drinking water quality, point and non-point source water pollution control, industrial wastewater treatment, point and non-point source air pollution control, solid and hazardous waste management and special Army programs such as asbestos, radon, underground storage tanks, and indoor air quality issues.

Laboratory personnel assist Department of the Army (DA) planners and resource managers with analyses and estimates of the impacts of pending legislation and regulations on the Army and assist in defining appropriate and economical Army response to these requirements.

II. Research Area

Fuel Cell Technology Advancements (HBCU-6)

Proposals are sought which address the following research areas for stationary fuel cell technology: a) Development of an advanced technology base, b) Lower-cost manufacturing processes, c) Balance-of-plant (BOP) components, and d) Packaging and assembly approaches. (Contact: Frank Holcomb, 217-398-5511.)

PART II PRE-PROPOSAL AND PROPOSAL PREPARATION AND SUBMISSION

I. INTRODUCTION

This part is intended to provide information needed in preparing research proposals for submission to CERL. Institutions interested in submitting research proposals to CERL are encouraged to make preliminary inquiries as to the general need for the type of research effort contemplated before expending extensive effort in preparing a detailed research proposal or submitting proprietary information. Points of contact are listed with the specific research areas. The research proposal often represents a substantial investment of time and effort by the offeror, and it should present the proposed research effort in sufficient detail to allow CERL to evaluate the scientific merit and relevance of the proposed research. Pre-proposals and proposals must reference this announcement number (DACA88-99-R-0002) and the code number for the specific research topic area to which the proposal applies (e.g., HBCU-1).

Response to this BAA is a two-phase process. All offerors are required to initially submit a phase I pre-proposal. CERL staff will review each pre-proposal to determine if further consideration is warranted. This decision will be based on the scientific merit of the proposal, the potential contribution to the CERL mission, and availability of funding for the effort. Upon completion of the initial review, each offeror will be notified either of acceptance and encouragement to submit a phase II, full proposal, or of rejection, and the rationale for this decision. This part is intended to provide information needed in preparing both Phase I and Phase II proposals. It is important that the offeror carefully address the requirements of this section. Omissions of required information may delay the CERL evaluation, or may result in rejection of a proposal.

II. GENERAL INFORMATION

A. PROPOSAL PREPARATION:

In preparing pre-proposals and full proposals it is important that the offeror keep in mind the characteristics of a suitable proposal acceptable for formal evaluation. It should include all the information specified in this announcement, including the proposal cover page provided in Attachment 1, in order to avoid delays in evaluation.

B. REPORT REQUIREMENTS:

The number and types of reports will be specified in the contractual document or assistance instrument, and shall be prepared and submitted in accordance with the procedures provided to the awardee. The Contractor may include periodic and final reports as deemed appropriate in their proposal for negotiation.

C. PROPOSAL SUBMISSION:

Pre-proposals and full proposals shall be mailed to:

Construction Engineering Research Laboratories Attn: CTC-BAA 2902 Newmark Drive Champaign, IL 61822-1076

III. TYPE OF CONTRACT

- A. Selection of the type of contract or assistance instrument is based upon various factors, such as the type of research to be performed, the contractor's experience in maintaining cost records, an assessment of the risk factors of the parties, and the ability to break out and allocate proposed costs and performance of the work. Any of the following types of instruments may be proposed and negotiated for the selected vendors prior to award. Numerous types or combinations thereof are available to the Government for award under the BAA. The two (2) types of contracts that are commonly used because of their flexibility in supporting both research and CERL's external customers, are cost reimbursement contracts and firm fixed-price contracts. These types of contracts are defined below:
 - 1. <u>Cost Reimbursement Contracts</u>: A document commonly used because of its flexibility in supporting research, is a cost-reimbursement type contract. This type of contract permits reimbursement for actual costs incurred in accomplishment of research. It also permits some flexibility in the redirection of efforts due to recent research experiment results or changes in Army guidance.
 - 2. <u>Firm Fixed-Price Contracts</u>: Firm fixed-price contracts are used when the research project costs can be estimated accurately, the services to be rendered are reasonably definite, and the amount of contract-furnished property, if any, is fixed. The negotiated price is not subject to any adjustment on the basis of the contractor's cost experience in performing the contract.
- B. The two (2) types of assistance instruments to be used include grants or cooperative agreements. Most assistance awards (grants or cooperative agreements) are provided on a cost basis based on a negotiated budget at the time of award. Assistance funds may be used only for 1) The allowable costs of the grantees, subgrantees and cost-type contractors, including allowable costs in the form of payments to fixed-price contractors; and 2) Reasonable fees or profit to cost-type contractors but not any fee or profit (or other increment above allowable costs) to the grantee or subgrantee. These types of assistance agreements are defined below:
 - 1. <u>Grants</u>: A grant is defined as a legal instrument used to enter into a relationship, the principal purpose of which is to transfer a thing of value to the recipient to carry out a public purpose of support or stimulation authorized by a law of the United States, rather than to acquire property or service for the Department of Defense's direct benefit or use. Further, it is a relationship in which substantial involvement **is not**

expected between DoD and the recipient when carrying out the activity contemplated by the grant.

2. <u>Cooperative Agreements</u>: A cooperative agreement is a legal instrument used to enter into the same kind of relationship as a grant, except that substantial involvement **is** expected between DoD and the recipient when carrying out the activity contemplated by the cooperative agreement. The term does not include "cooperative research and development agreements" as defined in 15 U.S.C. 3710a.

IV. CONTENTS OF PRE-PROPOSALS

Pre-proposals should be limited to five pages. Four (4) copies are requested. The pre-proposal should contain the following, many of which can be included on the proposal cover page included in Attachment 1:

- A. A title descriptive of the research to be performed and the appropriate topic number(s) provided in this announcement.
 - B. The name and address of the educational institution making the pre-proposal.
- C. The name and phone number of the principal investigator or senior researcher who would be in charge of the project.
 - D. The duration of the project.
- E. The total estimated cost, including labor cost, materials cost, and indirect cost burdens.
- F. One or more paragraphs describing the objective(s) of the proposed research to include a statement of the working hypothesis to be proved or disproved, if appropriate.
- G. One or more paragraphs describing the approach to be taken in the course of the research. If experimental, it should include a description of the scope of the testing program; if analytical, it should include key assumptions to be made, the scientific basis for the analysis, and the numerical procedures to be used.
- H. One or more paragraphs describing the potential military and/or civil payoffs that might ultimately derive from the proposed research to the Corps of Engineers.
 - I. A one-page curriculum vitae of the principal investigator.

V. CONTENTS OF FULL PROPOSALS

If a pre-proposal has been accepted by the Government, the offeror will be encouraged to submit a full Phase II proposal. Full proposals should be furnished in four (4) copies and contain the following:

- A. TECHNICAL: The technical portion of the proposal should contain the following:
- 1. A complete discussion stating the background and objectives of the proposed work, the approaches to be considered, the proposed level of effort, and the anticipated results/products.
- 2. The names, brief biographical information, experience, and a list of recent publications of the offeror's key personnel who will be involved in the research.
 - 3. The names of other agencies to whom the proposal has also been submitted.
 - 4. A brief description of the offeror's organization.
 - 5. Proposed reports and deliverables to be furnished.
- 6. Past performance information to include the name, address, point of contact, phone number, contract identification number, contract award date and amount for a minimum of three (3) customers for whom the offeror has performed similar services in the last three (3) years.
- B. COST: The cost portion of the proposal should contain a cost estimate for the proposed effort sufficiently detailed by element of cost for meaningful evaluation. The estimate should be broken down for each year of the proposed work and should include the following:
 - 1. A complete breakdown of direct labor to include, by discipline or individual, hours or percentage of time and salary.
 - 2. Fringe benefits rate and base.
 - 3. An itemized list of equipment showing cost of each item.
 - 4. Description and cost of expendable supplies.
 - 5. Complete breakdown of travel to include air fare, per diem, rental car, etc.
 - 6. Complete breakdown of any subawards. If a contract is requested in excess of \$500,000, the breakdown shall be provided in the form of a Subcontracting Plan prepared in accordance with FAR Clause No. 52.219-9 attached in Section IV.
 - 7. Other direct costs (reproduction, computer, etc.).
 - 8. Indirect cost rates and bases with an indication whether rates are fixed or provisional and the time frame to which they are applied.
 - 9. Cost-sharing ratio, if applicable.

10. Completed clauses as included in Part IV.

Offerors should furnish the name and telephone number of the cognizant audit agency if they have been audited.

The standard form for applying for federal assistance is Standard Form (SF) 424. This form may be used for applications when applying for federal assistance through a grant or cooperative agreement. The form may be found on the internet at http://www.whitehouse.gov/WH/EOP/OMB/Grants/sf424.pdf, or, if not included with the application, a form will be submitted to the institution for completion if an assistant agreement is anticipated.

PART III

REVIEW OF PRE-PROPOSALS AND EVALUATION OF PROPOSALS

I. REVIEW OF PRE-PROPOSALS

Upon receipt of a pre-proposal (not to exceed 5 pages), the CERL staff will perform an initial review of its scientific merit and potential contribution to the Army mission and also determine if funds are expected to be available for the effort. Offerors of pre-proposals of interest that merit further consideration by CERL will be encouraged to submit a full proposal (in the format outlined in Part II) and these proposals will be evaluated in accordance with the criteria in Section II.

Pre-proposals and proposals not considered to have sufficient scientific merit or relevance to the Army's needs, or those in areas for which funds are not expected to be available may be declined without further review.

II. EVALUATION OF FULL PROPOSALS

Full Phase II proposals submitted in response to this BAA and the Government's request will be evaluated as received, using the following factors:

- A. The overall scientific and/or technical merits of the proposal.
- B. The potential contributions of the effort to the CERL mission.
- C. The offeror's capabilities, related experience, facilities, techniques, or unique combinations of these which are integral factors for achieving the proposal objectives.
- D. The qualifications, capabilities, and experiences of the proposed principal investigator, team leader, and other key personnel who are critical to achievement of the proposal objectives.
 - E. The reasonableness of proposed costs and the availability of funds.

III. AWARD INFORMATION

Each offeror will be notified either of acceptance of the full proposal, or of rejection and the rationale for this decision. If the full proposal is accepted by the Government and funds are available or anticipated, CERL will then prepare and issue a solicitation which incorporates the Offeror's full proposal. The solicitation document will contain, where appropriate, detailed special provisions concerning patent rights, rights in technical data and computer software, reporting requirements, equal employment opportunity, etc. It may also contain additional

requirements for negotiation. Award will occur following the offeror's acceptance of the contractual or assistance documents and negotiations, if applicable. Please note that award is not final until signed by a Contracting Officer who is the only one authorized to bind the Government.

PART IV

CLAUSES AND PROVISIONS

The following clauses are applicable to any contracts or solicitations issued from proposals under this BAA, and shall be completed as appropriate and returned with all full proposals.

I. 52.204-7004:

REQUIRED CENTRAL CONTRACTOR REGISTRATION (MAR 1998)

- (a) Definitions. As used in this clause--
- (1) "Central Contractor Registration (CCR) database" means the primary DoD repository for contractor information required for the conduct of business with DoD.
- (2) "Data Universal Numbering System (DUNS) number" means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.
- (3) "Data Universal Numbering System +4 (DUNS+4) number" means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned by a parent (controlling) business concern. This 4-digit suffix may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.
- (4) "Registered in the CCR database" means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code, is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.
- (b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.
- (2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting

Officer to verify that the offeror is registered in the CCR database.

- (3) Lack of registration in the CCR database will make an offeror ineligible for award.
- (4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.
- (c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to confirm on an annual basis that its information in the CCR database is accurate and complete.
- (d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423, or via the Internet at http://ccr.edi.disa.mil.

 (End of clause)

II. 52.209-5:

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (MAR 1996)

- (a)(1) The Offeror certifies, to the best of its knowledge and belief, that--
 - (i) The Offeror and/or any of its Principals--
 - (A) Are // are not // presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;
 - (B) Have // have not //, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of

offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

- (C) Are // are not // presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.
- (ii) The Offeror has // has not //, within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.
- (2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

- (b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- (c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.
- (d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- (e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award.

If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

III. 52,219-0009:

SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN (AUG 1998)

- (a) This clause does not apply to small business concerns.
- (b) Definitions. As used in this clause--

Commercial item means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

Commercial plan means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (e.g., division, plant, or product line).

Individual contract plan means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

Master plans means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

Subcontract means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) The offeror, upon request by the Contracting Officer, shall submit and negotiate a subcontracting plan, where applicable, which separately addresses subcontracting with small business concerns, with small disadvantaged business concerns and with women-owned small business concerns. If the offeror is submitting an individual contract plan, the

plan must separately address subcontracting with small business concerns, small disadvantaged business concerns, and women-owned small business concerns with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate the subcontracting plan shall make the offeror ineligible for award of a contract.

- (d) The offeror's subcontracting plan shall include the following:
- (1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business concerns, small disadvantaged business concerns and women-owned small business concerns as subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs.
- (2) A statement of--
- (i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;
- (ii) Total dollars planned to be subcontracted to small business concerns:
- (iii) Total dollars planned to be subcontracted to small disadvantaged business concerns; and
- (iv) Total dollars planned to be subcontracted to women-owned small business concerns.
- (3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to (i) small business concerns, (ii) small disadvantaged business concerns and (iii) women-owned small business concerns.
- (4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.
- (5) A description of the method used to identify potential sources for solicitation purposes (e.g., existing company source lists, the Procurement Automated Source System (PASS) of the Small Business Administration, the National Minority Purchasing Council Vendor

Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, small disadvantaged and women-owned small business concerns trade associations). A firm may rely on the information contained in PASS as an accurate representation of a concern's size and ownership characteristics for purposes of maintaining a small business source list. A firm may rely on PASS as its small business source list. Use of the PASS as its source list does not relieve a firm of its responsibilities (e.g., outreach, assistance, counseling, publicizing subcontracting opportunities) in this clause.

- (6) A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with (i) small business concerns, (ii) small disadvantaged business concerns, and (iii) women-owned small business concerns.
- (7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.
- (8) A description of the efforts the offeror will make to assure that small, small disadvantaged and women-owned small business concerns have an equitable opportunity to compete for subcontracts.
- (9) Assurances that the offeror will include the clause in this contract entitled "Utilization of Small, Small Disadvantaged and Women-Owned Small Business Concerns" in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of \$500,000 (\$1,000,000 for construction of any public facility) to adopt a subcontracting plan that complies with the requirements of this clause.
- (10) Assurances that the offeror will--
- (i) Cooperate in any studies or surveys as may be required;
- (ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;
- (iii) Submit Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, following the instructions on the forms or as provided in agency regulations; and

- (iv) Ensure that its subcontractors agree to submit SF 294 and SF 295.
- (11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small, small disadvantaged and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated):
 - (i) Source lists (e.g., PASS), guides, and other data that identify small, small disadvantaged and women-owned small business concerns.
 - (ii) Organizations contacted in an attempt to locate sources that are small, small disadvantaged or women-owned small business concerns.
- (iii) Records on each subcontract solicitation resulting in an award of more than \$100,000, indicating (A) whether small business concerns were solicited and if not, why not, (B) whether small disadvantaged business concerns were solicited and if not, why not, (C) whether women-owned small business concerns were solicited and if not, why not, and (D) if applicable, the reason award was not made to a small business concern.
- (iv) Records of any outreach efforts to contact (A) trade associations, (B) business development organizations, and (C) conferences and trade fairs to locate small, small disadvantaged and women-owned small business sources.
- (v) Records of internal guidance and encouragement provided to buyers through (A) workshops, seminars, training, etc., and (B) monitoring performance to evaluate compliance with the program's requirements.
- (vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.
- (e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:
- (1) Assist small, small disadvantaged and women-owned small business concerns by arranging solicitations, time for the preparation of bids,

quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small, small disadvantaged and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

- (2) Provide adequate and timely consideration of the potentialities of small, small disadvantaged and women-owned small business concerns in all "make-or-buy" decisions.
- (3) Counsel and discuss subcontracting opportunities with representatives of small, small disadvantaged and women-owned small business firms.
- (4) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, small disadvantaged or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.
- (f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided--(1) the master plan has been approved, (2) the offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer, and (3) goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.
- (g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Commercial plans are also preferred for subcontractors that provide commercial items under a prime contract, whether or not the prime contractor is supplying a commercial item.
- (h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.
- (i) The failure of the Contractor or subcontractor to comply in good faith with (1) the clause of this contract entitled "Utilization Of Small,

Small Disadvantaged and Women-Owned Small Business Concerns," or (2) an approved plan required by this clause, shall be a material breach of the contract. (End of clause)

IV. 52.219-7005:

MILITARY RECRUITING ON CAMPUS (FEB 1996)

- (a) Definition. "Directory information," as used in this clause, means, with respect to a student, the student's name, address, telephone listing, date and place of birth, level of education, degrees received, and the most recent previous educational institution enrolled in by the student. Students are individuals who are 17 years of age or older.
- (b) General. An institution of higher education that has been determined, using procedures established by the Secretary of Defense at 32 CFR part 216: (1) to have a policy of denying, or (2) to effectively prevent the Secretary of Defense from obtaining for military recruiting purposes, entry to such institution's campuses, access to students on those campuses, or access to directory information pertaining to its students, is ineligible for contract award and payments under existing contracts. In addition, the Government shall terminate this contract for the Contractor's material failure to comply with the terms and conditions of award.
- (c) Agreement. The contractor represents that it does not now have and agrees that during performance of this contract it will not adopt a policy of denying, and that it does not, is not, and will not during performance of the contract, effectively prevent the Secretary of Defense from obtaining for military recruiting purposes entry to campuses, access to students on campuses, or access to directory information pertaining to students.

 (End of clause)

V. 52.226-7000:

NOTICE OF HISTORICALLY BLACK COLLEGE OR UNIVERSITY AND MINORITY INSTITUTION SET-ASIDE (APR 1994)

(a) Definitions. "Historically black colleges and universities," as used in this clause, means institutions determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. The term also means any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

"Minority institutions," as used in this clause, means institutions meeting the requirements of section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)). The term also includes Hispanic-serving

institutions as defined in section 316(b)(1) of such Act (20 U.S.C. 1059c(b)(1)).

- (b) General. (1) Offers are solicited only from historically black colleges or universities and minority institutions.
- (2) Any award resulting from this solicitation will be made only to an offeror which is a historically black college or university or a minority institution at the time of submission of its initial offer including price.
- (c) Agreements. The offeror will--
- (1) Perform at least 50 percent of the cost of contract performance incurred for personnel with its own employees; and
- (2) Upon request by the Contracting Officer, provide evidence prior to award that the Secretary of Education has determined the offeror to be a historically black college or university or minority institution.

 (End of clause)

VI. 52.226-7001:

HISTORICALLY BLACK COLLEGE OR UNIVERSITY AND MINORITY INSTITUTION STATUS (JAN 1997)

(a) Definitions.

"Historically black colleges and universities," as used in this provision, means institutions determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. The term also means any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

"Minority institutions," as used in this provision, means institutions meeting the requirements of section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)). The term also includes Hispanic-serving institutions as defined in section 316(b)(1) of such Act (20 U.S.C. 1059c(b)(1)).

(b) Status.
If applicable, the offeror shall check the appropriate space below: A historically black college or university.
A minority institution.
(End of provision)

ATTACHMENT 1

PROPOSAL COVER PAGE

(This form must be completed and submitted with proposal.)

1. THE PI	RINCIPAL INVESTI	IGATOR:			
(Title)	(First Name)	(MI)	(Last Name	e)	
		(Pho	one)		
		(Department	c/Division)		
2. THE PI	ROPOSAL:				
suitable i	THE PROPOSAL (Pl for indexing and cal or scientifi	d retrieval	, and avoid a		
(Total Fur	nds Requested)	-	d Start Date Month/Year)		_
3. AREA I	BEING ADDRESSED:	:			
BAA Topic	Title		То	pic Number/I	Page Number
4. THE O	FFEROR:				
	(Legal Name	of Offeror)		
	(St	treet Addres	ss/Box Number	·)	
(Cit	у)	(St	cate)	(Zip Code)	
5. SIGNA	rure:				
(Signature	e of official au	uthorized to	o obligate of	 feror)	(Date)